Cancel claims 1 and 60-69, without prejudice.

Amend claims 52-59 to read as follows:

52. (Amended) The method of claim 51, wherein said interpolated response profile yields a maximum correlation between said diagnostic profile and said interpolated response profile.

53. (Amended) The method of claim 52, wherein said statistical significance of said level of said disease state is determined by comparing the value of said maximum correlation to an expected probability distribution of values of maximum correlation.

54. (Amended) The method of claim 53, wherein said expected probability distribution of values of maximum correlation is obtained by a method comprising

(1) randomizing said diagnostic profile data with respect to cellular constituents to generate a permuted diagnostic profile;

(2) obtaining an interpolated response profile, said interpolated response profile yielding a maximum correlation between said permuted diagnostic profile and said interpolated response profile; and

(3) repeating steps (1) and (2) to construct a probability distribution of values of maximum correlation.

55. (Amended) The method of claim 53, wherein said expected probability distribution of values of maximum correlation is obtained by a method comprising

(1) randomizing said response profile data with respect to the cellular constituents to generate permuted interpolated response curves;

(2) obtaining an interpolated response profile, said interpolated response profile being extracted from said permuted interpolated response curves and yielding a maximum correlation between said diagnostic profile and said interpolated response profile; and

(3) repeating steps (1) and (2) to construct a probability distribution of values of maximum correlation.

56. (Amended) The method of claim 51, wherein said interpolated response profile

yields a minimum difference between said diagnostic profile and said interpolated response profile.

57. (Amended) The method of claim 56, wherein said statistical significance of said level of said disease state is determined by comparing the value of the minimum difference to an expected probability distribution of values of minimum difference.

58. (Amended) The method of claim 57, wherein said expected probability distribution of values of minimum difference is obtained by a method comprising

(1) randomizing said diagnostic profile data with respect to the cellular constituents to generate a permuted diagnostic profile;

(2) obtaining an interpolated response profile, said interpolated response profile yielding a minimum difference between said permuted diagnostic profile and said interpolated response profile; and

(3) repeating steps (1) and (2) to construct a probability distribution of values of minimum difference.

59. (Amended) The method of claim 57, wherein said expected probability distribution of values of minimum difference is obtained by a method comprising

(1) randomizing said response profile data with respect to the cellular constituents to generated permuted interpolated response curves;

(2) obtaining an interpolated response profile, said interpolated response profile being extracted from said permuted interpolated response curves and yielding a minimum difference between said diagnostic profile and said interpolated response profile; and

(3) repeating steps (1) and (2) to construct a probability distribution of values of minimum difference.

REMARKS

Claim 1 and claims 51-69 (corresponding to claims 57-75 as filed in the Preliminary Amendment filed on February 14, 2001) were pending in the application. In the instant response, claim 1 and claims 60-69 (corresponding to claims 66-75 as filed in the Preliminary